What is claimed is:

1. A nucleic acid construct comprising a male gamete- or female gamete-specific promoter operably linked to a suicide gene, wherein said promoter and said suicide gene combination is linked to a gene of interest.

2. A nucleic acid construct comprising a pollen-specific promoter or an ovule-specific promoter operably linked to a suicide gene selected from the group consisting of barnase, tasselseed2 and diphtheria toxin A gene; wherein said promoter and said suicide gene combination is linked to a gene of interest selected from the group consisting of a gene coding for herbicide resistance, antibiotic resistance, insecticide resistance, nitrogen fixation, improved nutrition and cellulose content or other agronomic trait of interest.

3. The nucleic acid construct of claim 1 wherein said promoter is selected from the group consisting of a pollen-specific promoter and an ovule-specific promoter.

4. The nucleic acid construct of claim 1 wherein said suicide gene is selected from the group consisting of barnase, tasselseed2 and diphtheria toxin A gene.

5. The nucleic acid construct of claim 1 wherein said gene of interest is selected from the group consisting of a nucleic acid encoding herbicide resistance, antibiotic resistance, insecticide resistance, nitrogen fixation, improved nutrition and cellulose content.

6. A vector comprising the nucleic acid construct of claim 1.

7. A vector comprising the nucleic acid construct of claim 2.

8. A host cell comprising the vector of claim 6.

9. A host cell comprising the vector of claim 7.

10. A recombinant plant cell comprising the vector of any one of claims 6-7.

11. A transgenic plant comprising the vector of any one of claims 6-7.

12. The transgenic plant of claim 11, wherein the transgenic plant is hemizygotic for the nucleic acid construct.

13. A method for reducing or eliminating male transmission of a transgene locus in a plant comprising:

a) transforming a plant cell with a nucleic acid construct in which a male gamete-specific promoter is operably linked to a suicide gene, wherein said promoter and said suicide gene combination is linked to a heterologous polynucleotide;

b) propagating said transformed plant cell through meiosis to produce male gametes lacking said transgene locus.

14. A method for reducing or eliminating male transmission of a transgene locus in a plant comprising:

a) transforming a plant cell with a nucleic acid construct in which a pollen-specific promoter is operably linked to a suicide gene;

i) wherein said suicide gene is selected from the group consisting of barnase, tasselseed2 and diphtheria toxin A gene;

ii) wherein said promoter and said suicide gene combination is linked to a heterologous polynucleotide;

iii) wherein said heterologous polynucleotide is selected from the group consisting of DNA encoding herbicide resistance, antibiotic resistance, insecticide resistance , nitrogen fixation, improved nutrition and cellulose content;

b) propagating said transformed plant cell through meiosis to produce male gametes lacking said transgene locus.

15. A method for reducing or eliminating female transmission of a transgene locus in a plant comprising:

a) transforming a plant cell with a nucleic acid construct in which a female gamete-specific promoter is operably linked to a suicide gene, wherein said promoter and said suicide gene combination is linked to a heterologous polynucleotide;

b) propagating said transformed plant cell through meiosis to produce female gametes lacking said transgene locus.

16. A method for reducing or eliminating female transmission of a transgene locus in a plant comprising:

a) transforming a plant cell with a nucleic acid construct in which an ovule-specific promoter is operably linked to a suicide gene;

i) wherein said suicide gene is selected from the group consisting of barnase, tasselseed2 and diphtheria toxin A gene;

ii) wherein said promoter and said suicide gene combination is linked to a heterologous polynucleotide;

iii) wherein said heterologous polynucleotide is selected from the group consisting of DNA encoding herbicide resistance, antibiotic resistance, insecticide resistance, nitrogen fixation, improved nutrition and cellulose content.

b) propagating said transformed plant cell through meiosis to produce female gametes lacking said transgene locus.

17. The transformed plant cell of claim 13, 14, 15 or 16, wherein the transformed plant cell is hemizygotic for the nucleic acid construct.

18. A nucleic acid construct comprising a male gamete- or female gamete-specific promoter operably linked to a suicide gene wherein said promoter and said suicide gene combination is linked to a transposable element.

19. The nucleic acid construct of claim 18, further comprising a transposase gene.

20. The nucleic acid construct of claim 18 or claim 19 further comprising a gene of interest.

21. The nucleic acid construct of claim 20, wherein the gene of interest is associated with the transposable element.

22. A nucleic acid construct in which a pollen-specific promoter or an ovule-specific promoter is operably linked to a suicide gene selected from the group consisting of barnase, tasselseed2 and diphtheria toxin A gene; wherein said promoter and said suicide gene combination is linked to a transposon, wherein said transposon comprises a selectable marker

selected from the group consisting of a gene coding for herbicide resistance, antibiotic resistance, insecticide resistance, nitrogen fixation, improved nutrition and cellulose content.

23. The nucleic acid construct of claim 22 wherein said promoter is selected from the group consisting of a pollen-specific promoter and an ovule-specific promoter.

24. The nucleic acid construct of claim 22 wherein said suicide gene is selected from the group consisting of barnase, tasselseed2 and diphtheria toxin A gene.

25. A vector comprising the nucleic acid construct of claim 18.

26. A vector comprising the nucleic acid construct of claim 22.

27. A host cell comprising the vector of claim 18.

28. A host cell comprising the vector of claim 22.

29. A recombinant plant cell comprising the vector of claim 18 or claim 22.

30. The recombinant plant cell of claim 29, wherein the recombinant plant cell is hemizygotic for the nucleic acid construct.

31. A transgenic plant comprising the vector of claim 18 or claim 22.

32. The transgenic plant of claim 31, wherein the recombinant plant cell is hemizygotic for the nucleic acid construct.

33. A method for enriching dispersed transposition events in a population of plant cell progeny comprising:

a) transforming a plant cell with the nucleic acid construct of any one of claims 18-24 to produce a transformed plant cell;

b) propagating said transformed plant cell through meiosis to produce plant cell progeny in which dispersed transposition events are enriched.

34. The method of claim 33 further comprising:

c) isolating said plant cell progeny in which dispersed transposition events are enriched.

35. A plant cell isolated by the method of claim 34.

36. A plant produced from the plant cell of claim 35.

37. The plant cell of any one of claims 33, 34 or 35, wherein the plant cell is hemizygotic for the nucleic acid.

38. A nucleic acid construct comprising a first promoter wherein the first promoter is a male gamete- or female gamete-specific promoter operably linked to a suicide gene and further comprising a nucleic acid encoding a transposase and a nucleic acid encoding a transposon.

39. The nucleic acid construct of claim 38, wherein the transposon comprises a second promoter operably linked to a selectable marker, wherein the selectable marker is not a suicide gene.

40. A nucleic acid construct in which a pollen-specific promoter or an ovule-specific promoter is operably linked to a suicide gene selected from the group consisting of barnase, tasselseed2 and diphtheria toxin A gene, wherein said promoter and said suicide gene combination is linked to a nucleic acid encoding transposase; wherein said promoter and said suicide gene combination linked to said nucleic acid encoding transposase comprise a transgene locus which further comprises a transposon; wherein said transposon comprises a polynucleotide sequence encoding a member selected from the group consisting of herbicide resistance, antibiotic resistance, insecticide resistance, nitrogen fixation, improved nutrition and cellulose content.

41. The nucleic acid construct of claim 40 wherein said promoter is selected from the group consisting of a pollen-specific promoter and an ovule-specific promoter.

42. The nucleic acid construct of claim 40 wherein said suicide gene is selected from the group consisting of barnase, tasselseed2 and diphtheria toxin A gene.

43. The nucleic acid construct of claim 40 wherein said transposon comprises a polynucleotide sequence encoding a member selected from the group consisting of herbicide resistance, antibiotic resistance, insecticide resistance, nitrogen fixation, improved nutrition and cellulose content.

44. A vector comprising the nucleic acid construct of claim 38.

45. A vector comprising the nucleic acid construct of claim 40.

46. A host cell comprising the vector of claim 44.

47. A host cell comprising the vector of claim 45.

48. The host cell of claim 46 or claim 47, wherein the nucleic acid construct is hemizygotic.

49. A recombinant plant cell comprising the vector of any one of claims 44-45.

50. The recombinant plant cell of claim 49, wherein the nucleic acid construct is hemizygotic.

51. A transgenic plant comprising the vector of any one of claims 44-45.

52. The transgenic plant of claim 51, wherein the nucleic acid is hemizygotic.

53. A method for enriching stably dispersed transposition events in a population of plant cell progeny comprising:

a) transforming a plant cell with a nucleic acid construct of any one of claims 38-43 to produce a transformed plant cell;

b) propagating said transformed plant cell through meiosis to produce plant cell progeny in which stably dispersed transposition events are enriched.

54. The method of claim 53 further comprising:

c) isolating said plant cell progeny in which stably dispersed transposition events are enriched.

55. A plant cell isolated by the method of claim 54.

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56. A plant produced from the plant cell of claim 55.